# United States Environmental Protection Agency EPA New England One Congress Street, Suite 1100 Boston, MA 02114-2023

October 10, 2003

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**Public Information Repositories** 

RE: September 2003 Monthly Report

1.5 Mile Reach Removal Action

GE-Pittsfield/Housatonic River Site

Enclosed please find the September 2003 Monthly Report for the 1.5 Mile Reach Removal Action. In accordance with the Consent Decree for the GE-Pittsfield/Housatonic River Site, the United States Environmental Protection Agency (EPA) is performing the 1.5 Mile Reach Removal Action, with General Electric funding a portion of the project through a cost sharing formula.

The EPA has entered into an agreement with the United States Army Corps of Engineers (USACE) to assist in the design and construction of the Removal Action. The USACE subsequently awarded a design-construct contract to Weston Solutions, Inc. (Weston). Weston, with several subcontractors, will be performing the design and construction activities for the 1.5 Mile Reach Removal Action.

If you have any questions, please contact me at (413) 236-0969. Sincerely,

1.5 Mile Reach Removal Action Project Manager

#### 1. Overview

During September 2003, the Environmental Protection Agency (EPA), the United States Army Corps of Engineers (USACE), the USACE's contractor, Weston Solutions, Inc., and Weston's subcontractors continued remediation activities on the 1.5 Mile Reach Removal Action. The primary work included soil and sediment excavation activities in Cells 13W and 13E. The transfer of TSCA and non-TSCA materials from the stockpile management areas to the GE On Plant Consolidation Areas (OPCAs) was also performed. In addition, a transfer of NAPL-impacted materials from the stockpile management areas to an approved off-site facility was completed.

### 2. Chronological description of tasks performed

Refer to Figure 1 for an orientation of the sheetpile cells and their respective locations.

By the end of August 2003, the gravity bypass system was in place and operational and the dewatering of Cell 13 was initiated. During the first week of September, the dewatering of Cell 13 continued. The river water directly downstream of the dam in already remidiated areas was pumped back over the dam and the water in areas within Cell 13 was dewatered down to a sixinch depth and rerouted downstream of the Elm Street Bridge. Once the water depth reached six inches the water was pumped to the water treatment system.

Removal of the sheetpile isolation cell used during the construction of the temporary dam on the east side of the river was completed. The removed sheetpile was moved to the decontamination pad on the staging area adjacent to Building 68 stockpile management area and decontamination activities were completed.

Also, during the first week in September installation of flat sheetpiling to allow separation between already remediated areas directly downstream of the dam and the areas within Cell 13 was completed. Installation of the flat sheetpiling through the centerline of Cell 13 was initiated. The centerline sheetpile wall is to separate the east side of Cell 13 from the west side, therefore creating two excavation cells; Cell 13 east (Cell 13E) and Cell 13 west (Cell 13W).

The survey subcontractor completed locating the excavation depths and limits as well as TSCA and non-TSCA areas in Cell 13.

Sumps and trenches were installed in the bottom of the Cell 13W to facilitate the dewatering process. Upon completion of the dewatering, excavation activities were initiated in Cell 13W. Excavation activities started with removal of TSCA. The material was then transported to the Building 63 stockpile management area. (See Table 1 for a daily summary of material transported to the stockpile management areas in the month of September)

During the second week of September TSCA material excavation activities were completed and the removal of non-TSCA materials was initiated. The TSCA material was then transported to Building 63 and the non-TSCA material to the Building 65 stockpile management areas. The survey subcontractor completed verification survey of the TSCA excavation areas. During the excavation of Cell 13W NAPL-impacted sediment was encountered. The NAPL-impacted sediment (approximately 108 cubic yards) was removed and transported to the designated stockpile management area in Building 68. The excavation will be completed at a later date. The excavated riverbanks were covered daily with poly sheeting to prevent erosion.

The installation of the flat sheetpiling through the centerline of Cell 13 was completed. The wall extended all the way down to the Elm Street Bridge at which point the sheetpile could not be installed due to the bedrock that was encountered. The location survey of the centerline sheetpile wall was completed.

Other activities during the second week of September included adding pins to the upstream of the temporary dam trash rack to enable the cages to be pulled up and pinned above the river water level. Also one pair of sheetpile was welded in place to the east side of the dam to bring the top elevation to 978. Modifications were made to the stop log removal system, additional height was added to the lifting beams to ease the removal of the stop logs. Additional 18-inch riprap was added in the low spots under the 54-inch pipe for additional support of the pipe.

During the third week of September the non-TSCA material excavation activities in Cell 13W were completed with the exception to the NAPL-impacted sediment under the Elm Street Bridge, which will be done at a later date. (See Table 2 for final excavation quantities). The material non-TSCA material was then transported to both the Building 65 stockpile management areas and directly to the Hill 78 OPCA.

There were concerns that possible significant over excavation associated with NAPL-impacted sediment under the Elm Street Bridge combined with forecasted heavy rains from Hurricane Isabel would undermine the footings of the Elm Street Bridge. Therefore a decision was made to leave the NAPL-impacted sediment in place for the time being, relocate the 54-inch pipes to Cell 13W and proceed to excavate 13E.

Installation of Hpiles was completed on the west bank for the restraint system of the 54-inch pipe. Four-inch valves were installed on the top of both of the 54-inch pipes. Relocation of the pipes was completed as follows: A slide gate was closed on one pipe forcing the water through the second pipe. The first pipe was then dewatered by pumping the water out of the pipe through the 4-inch valve. Next, the first pipe was moved to the west side of the river. The gate on the first pipe was opened to allow the river water through it and the slide gate on the second one was closed. The water was pumped out of the second pipe and the second pipe was moved to the west side of the river. The slide gate on the second pipe was re-opened. The pipes than were then attached to the restraint system. Collars were installed around the pipes tying the two pipes to one another. H-piles were also installed between the pipe to reinforce and secure the locations in which the collars have been tied onto the pipe.

Other activities during the third week included removing a portion of an energy dissipater on the west riverbank immediately downstream of Elm Street Bridge. The removal was necessary to

ensure room for the 54-inch pipes. In order to divert storm water away from the excavation areas a temporary wall was constructed. This was achieved by installing a flat sheetpile wall in combination with bin blocks along the face of the remaining structure.

Several gravity bypass system maintenance activities were completed. Forming and pouring of concrete was completed on the west side of the temporary dam to bring the dam elevation to 978. Additional riprap was placed at the east and west ends of the temporary dam as erosion control measure and riverbank stability.

During the fourth week of September, Cell 13E was dewatered the water was pumped to the water treatment system. Sumps and trenches were installed in the bottom of the Cell 13E to facilitate the dewatering process. Also, a timber mat temporary ramp was built over the 54-inch pipe to allow access to Cell 13E from the west side of the river. Upon completion of the temporary ramp construction, non-TSCA material excavation activities were initiated in Cell 13E. The material was then transported to the Building 65 stockpile management area. The excavated riverbank areas were covered up with poly sheeting for erosion control.

Due to heavy rain on September 23, 2003 the river water level was highly elevated. The water overtopped the dam. Stop logs were removed and the dam was opened up, subsequently flooding the entire Cell 13. By September 24, 2003, the river water levels dropped down and the dewatering activities were initiated. Upon completion of the dewatering process the non-TSCA material excavation activities were started up again. The material was then transported to the Building 65 stockpile management area.

Other miscellaneous activities during the fourth week of September included construction of trash rack for the box culverts at the Day Street swale. The trash racks upstream of the temporary dam were cleaned. Additional sheetpile decontamination activities were completed.

The water levels rose again due to approximately 2.1 inches of rainfall over the weekend (September 27 and September 28, 2003) and the river flows reached a maximum of 1240 cubic feet per second (cfs). Once again the dam was overtopped, the stop logs removed and the entire Cell 13 flooded.

During the last week of September no excavation activities were completed due to the flooding conditions. Miscellaneous site clean up and equipment maintenance activities were performed during the last two days of September. Once the water levels started to drop down, the stop logs were installed and the dewatering of Cell 13E was initiated.

During the month of September, the water treatment system treated water from Cells 13W and 13E. Sampling of the water treatment system for parameters included in the NPDES exclusion permit was performed on September 09, 2003. Due to the presence of NAPL in Cell 13W, the analytical parameters for the water treatment system sampling continued to include volatiles, semi-volatiles and Total Petroleum Hydrocarbons. Air monitoring for particulate matter (PM10 sampling) and surface water turbidity monitoring was performed on a daily basis. The monthly PCB air-monitoring event was performed on September 30, 2003. Surface water sampling for total suspended solids (TSS) and PCBs was performed on September 03 and September 18, 2003. Sampling of Common Fill for chemical parameters was performed on September 30,

2003. PCB wipe samples were collected on the decontaminated sheetpile at a frequency of one sample for every ten sheets. Also, PCB wipe samples were collected on decontaminated equipment.

Geotechnical samples were collected for Common Fill. The results of the geotechnical testing are not included in the monthly reports but are contained in other submittals and are available upon request.

The transfer of non-TSCA materials from the Building 65 stockpile management area and directly from excavation Cells 13E and 13W to the Hill 78 OPCA was performed from September 15 to September 30, 2003. The transfer of TSCA materials from the Building 63 stockpile management area to the Building 71 OPCA was performed on September 22, 2003. Paint filter tests were collected at a frequency of 1 per 100 cubic yards (cy) of material loaded (see Table 3 for a summary of material transported to the OPCAs in September 2003 and Table 4 for a summary of material transported to the OPCAs for the project through September 2003).

The transfer of Cell 11A and Cell 12A NAPL-impacted materials from the Building 68 stockpile management area to the Seneca Meadows Landfill in Waterloo New York was completed. The transfer of the materials was performed from September 2 to September 10, 2003. Paint filter tests were collected at a frequency of 1 per 10 trucks of material loaded (see Table 5 for a summary of material transported to the Seneca Meadows Landfill during the month of September 2003).

The vibration monitoring activities were initiated on parcel I8-24-1. Two monitoring units were set up, one to monitor the Elm Street Bridge and the other one to monitor Harry's Supermarket parking lot. (See Figure 1 for the locations of the Vibration Monitors).

Traffic control was conducted on Lyman Street throughout the month of September.

The 250-ton crane was decontaminated, wipe sampled for PCBs, dismantled and sent offsite.

Dust control procedures continued for access roads, parking areas, and material storage areas. In addition, staged backfill materials were covered to prevent the generation of dust.

### 3. Sampling/test results received

PCB sample results for the water treatment system sampling program were received for samples collected on July 16, 2003 (Table 5). Non-PCB sample results were eccived for samples collected on June 25, 2003 (Table 5a). A summary of samples collected for the backfill sampling conducted on September 30, 2003 is provided in Table 7; however the data for the samples is not yet available. The results of the daily particulate air monitoring program are summarized in Table 8. Table 9 is a summary of daily turbidity monitoring results. Results for PCB and TSS samples and water column monitoring data collected on August 20, 2003 and September 03, 2003 are presented in Table 10. PCB and TSS results for water monitoring

samples collected on September 18, 2003 are not yet available. A summary of samples collected for the air sampling on August 29, 2003 and September 30, 2003 are provided in Table 11; however, the PCB data for samples collected on September 30, 2003 is not yet available. Table 12 contains PCB data associated with the decontaminated equipment and sheetpile confirmatory wipe samples. Table 13 presents the analytical data associated with the disposal characterization samples collected from the sediment removed from the water treatment system modutanks on August 18, 2003 and August 21, 2003.

### 4. Diagrams associated with the tasks performed

Figure 1 is a map of Phase I and the beginning of Phase II and includes layout of all excavation cells, temporary dam, lot parcel identification numbers, water monitoring locations, PCB air sampling locations, vibration monitoring locations, access road locations, fence line location, the water treatment system pad location, the effluent discharge location, and the utility trench location.

### 5. Reports received and prepared

Weston received a vibration monitoring summary report for the period of September 11, 2003 to October 3, 2003 from Vibra-Tech, Inc. During this period, two seismographs were set up on Parcel I8-24-1, approximately 100 feet apart from one to another. One unit was set up to monitor the Elm Street Bridge and the other unit was set up to monitor the Harry's Supermarket building. Both units were set up to collect data on the continuous seismic mode as well as the trigger mode. Activities occurring near the two monitoring locations during this period included normal background activities, sheet pile driving, and general construction activities. maximum ground vibration level measured was 1.27 inches per second (ips) and was measured by the Harry's Supermarket monitoring device during construction hours. Also the Harry's Supermarket monitoring device recorded numerous readings of 0.85 ips during post-construction After a review of the data it was concluded that data collected by the Harry's Supermarket monitoring device may be biased due to proximity of a parking lot to the monitoring location as well as loosely compacted soils around the geophone of the monitoring unit. The Harry's Supermarket location will be reconsidered for the month of October. The maximum ground vibration level measured by the device monitoring the Elm Street Bridge was 0.17 ips. The maximum vibration level (1.27 ips) encountered during the month represents 63.5 % of the state's recommended limit of 2.0 ips. All readings during this period comply with State Regulations.

### 6. Photo documentation of activities performed

See attached photos.

### 7. Brief description of work to be performed in October 2003

- Complete the excavation and backfill activities in Cell 13E.
- Remove the sheetpile separation wall between Cell 13E and 13W.
- Relocate the 54-inch pipe to the east side on the river channel.
- Completed the excavation of NAPL-impacted sediment under the Elm Street Bridge.
- Initiate the installation of the retaining wall on the toe of the riverbank in Cell 13W.
- Initiate backfill activities in Cell 13W.
- Arrange for transport of NAPL-impacted materials and the water treatment system modutank sediment to an approved off-site disposal facility.
- Potentially transfer TSCA and non-TSCA material to the OPCAs.
- Continue stockpile management activities at Buildings 63, 65 and 68.
- Continue operation of water treatment system.
- Continue daily air and turbidity monitoring.
- Continue PCB air sampling (once a month), water column sampling (twice a month), water treatment system sampling (monthly) and backfill material sampling (as needed).
- Continue Vibration monitoring activities of the Elm Street Bridge and the Harry's Supermarket parking lot during the installation of the Cell 13W riverbank retaining wall.

### 8. Attachments to this report

Table 1. Quantity of Bank and Sediment Material Generated During the Month of September

- Table 2. Quantity of Bank and Sediment Material Excavated to Date
- Table 3. Quantity of Material Transferred to OPCAs During the Month of September
- Table 4. Quantity of Material Transferred to OPCAs to Date
- Table 5. Quantity of NAPL-Impacted Material Transferred to Seneca Meadows, Waterloo, N.Y. During the Month of September
- Table 6. NPDES PCB Sampling Results for Water Treatment System
- Table 6a. NPDES non-PCB Sampling Results for Water Treatment System
- Table 7. Backfill Material Testing Results
- Table 8. Daily Air Monitoring Results
- Table 9. Daily Water Column Turbidity Monitoring Results
- Table 10. Summary of Turbidity, PCB, and TSS Water Column Monitoring Results
- Table 11. PCB Air Sampling Results
- Table 12. Equipment and Sheetpile Confirmatory Wipe Sample Results
- Table 13. Water Treatment System Modutank Sediment Disposal Characterization Results
- Figure 1- Phase I Site Plan

Photodocumentation

# Table 1 - Quantity of Bank and Sediment Material Generated during the month of September September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are reported in cubic yards)

		Approximate Quantity of Excavated Bank and Sediment Material			
Date	Location	non-TSCA	TSCA	NAPL impacted	
Bank Soil and S	Sediment				
09/04/03	Cell 13W		231		
09/08/03	Cell 13W	176	99		
09/09/03	Cell 13W	297			
09/10/03	Cell 13W	473		44	
09/11/03	Cell 13W	440			
09/12/03	Cell 13W	154		77	
09/15/03	Cell 13W	374			
09/16/03	Cell 13W	231			
09/18/03	Cell 13W	22			
09/22/03	Cell 13E	44			
09/25/03	Cell 13E	594			
09/26/03	Cell 13E	297		_	
	Monthly total from bank soil and sediment	3,102	330	121	

#### Note:

All quantities are in compacted or "in-place" cubic yards. All loads are estimated at 11cy per truck.

# Table 2 - Quantity of Bank and Sediment Material Excavated to Date September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are reported in cubic yards)

		Approximate Quantity of Bank and Sediment Material Excavated to Date				
Date	Location	non-TSCA	TSCA	NAPL impacted	Total	
09/26/02 to 10/02/02	Cell 1A	101	0	53	154	
10/02/02 to 10/04/02	Cell 1B	60	0	110	170	
10/18/02 to 10/29/02	Cell 2	874	175	0	1,049	
11/11/02 to 11/15/02	Cell 3	183	0	200	383	
11/18/02 to 11/25/02	Cell 4	2,283	198	0	2,481	
12/03/02 to 12/10/02	Cell 5	1,629	369	0	1,998	
01/07/03 to 01/15/03	Cell 6	832	658	0	1,490	
01/10/03 to 01/29/03	Cell 6A	2,611	68	0	2,679	
02/03/03 to 02/10/03	Cell 7&7A	1,114	636	0	1,750	
02/20/03 to 02/24/03	Cell 5A	899	0	0	899	
02/25/03 to 03/07/03	Cell 8&8A	1,245	90	0	1,335	
03/14/03 to 03/18/03	Cell 9	603	307	0	910	
03/27/03 to 04/07/03	Cell 10&10A	1,730	133	0	1,863	
04/14/03 to 04/16/03	Cell 12	668	1,354	0	2,022	
04/30/03 to 05/09/03	Cell 11	1,713	341	10	2,064	
05/27/03 to 06/12/03	Cell 11A	957	166	462	1,585	
06/25/03 to 07/18/03	Cell 12A	1,656	805	656	3,117	
09/04/03 to 09/16/03	Cell 13W	1,631	250	108	1,989	
	Total	20,789	5,550	1,599	27,938	

#### Note:

All quantities determined by pre- and post- excavation surveying.

# Table 3 - Quantity of Material Transferred to OPCAs During the Month of September September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are reported in cubic yards)

		Approximate Quantity Transported to OPC			
Date	# of truckloads	Hill 78 (non-TSCA)	Bldg. 71 (TSCA)		
Bank Soil and Sedimen	nt				
09/15/03	30	330	0		
09/16/03	22	242	0		
09/17/03	32	352	0		
09/18/03	35	385	0		
09/22/03	28	0	308		
09/25/03	5	55	0		
09/26/03	8	88	0		
09/29/03	22	242	0		
09/30/03	36	396	0		
Monthly totals	218	2,398 (1)	308 (1)		

#### Note:

All quantities are in compacted or "in-place" cubic yards.

(1) Estimated at 11 cy per truck.

#### Table 4 - Quantity of Material Transferred to OPCAs to Date September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are reported in cubic yards)

		Approximate Quantity T	ransported to OPCAs
Date	Location	Hill 78 (non-TSCA)	Bldg. 71 (TSCA)
Site Preparation Activ	rities	-	
09/11/02	Building 65 Stockpile Management Area	225	
Bank Soil and Sedime	ent		
12/05/02 to 12/19/02	Stockpile Management Area/Excavation Cells	4,718 (1)	910 (1)
02/11/03 to 02/28/03	Stockpile Management Area/Excavation Cells	5,137 (2)	539 (2)
03/03/03 to 03/14/03	Stockpile Management Area/Excavation Cells	1,749 (2)	1,353(2)
04/07/03 to 04/18/03	Stockpile Management Area/Excavation Cells	2,710 (3)	1,698 (3)
04/07/03 to 04/18/03	Stockpile Management Area/Cleanup Material	370 (3)	40 (3)
05/12/03 to 05/14/03	Stockpile Management Area/Excavation Cells	1826 (3)	(
05/12/03 to 05/14/03	Stockpile Management Area/Cleanup Material	220 (3)	C
06/11/03 to 06/12/03	Stockpile Management Area/Excavation Cells	0	704 (3)
06/16/03 to 06/17/03	Stockpile Management Area/Excavation Cells	712 (3)	C
06/16/03 to 06/17/03	Stockpile Management Area/Cleanup Material	146 (3)	C
07/07/03 to 07/11/03	Stockpile Management Area/Excavation Cells	1,188 (3)	748 (3)
09/15/03 to 09/30/03	Stockpile Management Area/Excavation Cells	2,398 (3)	308 (3)
	Project Totals	21,399	6,300

#### Note:

All quantities are in compacted or "in-place" cubic yards.

- (1) Estimated at 14cy per truck, loaded with excavator.
- (2) Estimated at 11cy per truck due to loading out frozen material.
- (3) Estimated at 11cy per truck, loaded with front end loader.

# Table 5 - Quantity of NAPL-Impacted Material Transported to Seneca Meadows Landfill, Waterloo, N.Y. During the Month of September September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

#### (Results are reported in tons)

Date Shipped	Doc. Number	Net Weight (Tons) (1)
09/02/03	0008SM	33.47
09/02/03	0009SM	31.17
09/02/03	0010SM	32.88
09/02/03	0011SM	31.65
09/02/03	0012SM	33.27
09/02/03	0013SM	33.55
09/02/03	0014SM	33.10
09/02/03	0015SM	31.56
09/03/03	0016SM	35.46
09/03/03	0017SM	32.51
09/03/03	0018SM	31.13
09/03/03	0019SM	33.11
09/03/03	0020SM	30.47
09/03/03	0021SM	33.11
09/03/03	0022SM	30.23
09/03/03	0023SM	31.12
09/03/03	0024SM	31.52
09/03/03	0025SM	32.51
09/04/03	0026SM	30.20
09/04/03	0027SM	20.82
09/04/03	0028SM	28.97
09/04/03	0029SM	29.30
09/04/03	0030SM	29.30
09/04/03	0031SM	28.20
09/04/03	0032SM	25.75
09/04/03	0033SM	29.32
09/05/03	0034SM	29.78
09/05/03	0035SM	27.61
09/05/03	0036SM	28.82
09/05/03	0037SM	29.10
09/05/03	0038SM	30.89
09/05/03	0039SM	28.70
09/08/03	0040SM	29.92

Date Shipped	Doc. Number	Net Weight (Tons) (1)
09/08/03	0041SM	32.22
09/08/03	0042SM	30.12
09/08/03	0043SM	31.13
09/08/03	0044SM	31.11
09/08/03	0045SM	31.16
09/08/03	0046SM	29.92
09/08/03	0047SM	33.01
09/08/03	0048SM	30.54
09/09/03	0049SM	29.92
09/09/03	0050SM	31.50
09/09/03	0051SM	24.70
09/09/03	0052SM	26.01
09/09/03	0053SM	28.55
09/09/03	0054SM	29.00
09/09/03	0055SM	29.07
09/09/03	0056SM	29.07
09/09/03	0057SM	28.29
09/09/03	0058SM	30.93
09/09/03	0059SM	30.51
09/09/03	0060SM	30.90
09/09/03	0061SM	32.62
09/09/03	0062SM	31.12
09/09/03	0063SM	23.39
09/09/03	0064SM	22.99
09/10/03	0065SM	29.43
09/10/03	0066SM	30.04
09/10/03	0067SM	27.97
09/10/03	0068SM	31.03
09/10/03	0069SM	30.93
09/10/03	0070SM	30.90
09/10/03	0071SM	30.41
09/10/03	0072SM	26.48
09/10/03	0073SM	20.06
	Total of Material Disposed	1973.53

#### Notes:

(1) Net weights established at the disposal facility

### Table 6 - NPDES Sampling Results for Water Treatment System September 2003 Monthly Report

### GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are presented in part per billion, ppb)

Sample ID	Location	Date Collected	Aroclor 1016, 1221, 1232, & 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
H2-WW000001-0-3S09	Influent	9/9/2003	ND(0.014)	ND(0.014)	0.34 J	1.5	1.8
H2-WW000002-0-3S09		9/9/2003	ND(0.012)	ND(0.012)	0.048	0.034	0.082
H2-WW000003-0-3S09	Effluent	9/9/2003	ND(0.013)	ND(0.013)	0.047	0.030	0.077
Action Level	Effluent		0.50	0.50	0.50	0.50	0.50

#### Notes:

ND(0.013) - Analyte was not detected. The value in parentheses is the associated detection limit. Intermediate - sample collected between carbon units which are being operated in series. 9/09/03 - monthly sampling

### Table 6a - NPDES non-PCB Sampling Results for Water Treatment System September 2003 Monthly Report

### GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are presented in part per billion, ppb)

Sample ID	H2-WW000001-0-3S09	H2-WW000002-0-3S09	H2-WW000003-0-3S09	NPDES Permit
Sample type	Influent	Intermediate	Effluent	Regulatory
Date Collected	09/09/2003	09/09/2003	09/09/2003	Effluent Limits
Analyte				
APP IX SEMIVOLATILES				
ACENAPHTHENE	4.3 J	ND	ND	100
BUTYLBENZYLPHTHALATE	0.59 J	ND	ND	100
FLUORANTHENE	0.61 J	ND	ND	100
FLUORENE	1.2 J	ND	ND	100
PYRENE	0.62 J	ND	ND	100
APP IX VOLATILES				
ACETONE	7.3	3.9 J	ND	100
BENZENE	1.8	ND	ND	5*
CHLOROFORM	ND	ND	0.53 J	100
ETHYL BENZENE	1.3	ND	ND	N/A
M,P-XYLENE (SUM OF ISOMERS)	0.82 J	ND	ND	*
NAPHTHALENE	4.6	ND	ND	100
O-XYLENE	0.40 J	ND	ND	*
TERT-BUTYL METHYL ETHER	17.0	7.1	9.1	70
TETRACHLOROETHYLENE(PCE)	6.2	ND	ND	N/A
TOLUENE	0.31 J	ND	ND	*
XYLENES (TOTAL)	1.3	ND	ND	*
ORGANIC				
TOTAL PETROLEUM HYDROCARBON (TPH)	ND	ND	ND	5000

#### NOTES:

Only detected constituents are summarized

ND - not detected

J - Indicates an estimated value

<sup>\*</sup> Total BTEX (Benzene, Toluene, Ethyl Benzene and Xylene) can not exceed 100 ppb Intermediate - sample collected between carbon units which are being operated in series.

#### Table 7 - Backfill Material Testing Results September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are presented in part per million, ppm)

Sample ID	H2-OT000034-0-3S30-1	H2-OT000034-0-3S30-2	
Sample type	Common Fill	Common Fill	Regulatory
Date Collected	09/30/2003	09/30/2003	Limits (1)
Analyte			
APP IX SEMIVOLATILES	NR		
APP IX VOLATILES	NR		
METALS	NR		
PCBS			
PCB, TOTAL	NR	NR	0.1*
ORGANIC			
TOTAL PETROLEUM HYDROCARBON (TPH)	NR	NR	200*

#### Notes:

Only detected constituents are summarized

ND - not detected

- --- not sampled
- (1) Massachusetts contingency plan S-1 limits
- \* Project specific acceptable levels for backfill

NR - Not yet reported

### Table 8 - Daily Air Monitoring Results September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

		Average Site Concentration	Average Period
Date Collected	Sample Location	(mg/m³)	(Hours:Min)
	Upwind	N/A	N/A
	Downwind	N/A	N/A
9/1/2003	Background	N/A	N/A
	Upwind	N/A	N/A
	Downwind	N/A	N/A
9/2/2003	Background	N/A	N/A
	Upwind	N/A	N/A
	Downwind	N/A	N/A
9/3/2003	Background	N/A	N/A
	Upwind	N/A	N/A
	Downwind	N/A	N/A
9/4/2003	Background	N/A	N/A
	Upwind	0.016	7:00
	Downwind	0.000	7:00
9/5/2003	Background		
	Upwind	0.005	9:00
	Downwind	0.006	9:00
9/8/2003	Background		
	Upwind		
	Downwind	0.011	7:00
9/9/2003	Background		
notification level		0.120	
action level		0.150	

#### Notes:

N/A - Not available due to precipitation

--- - No reading due to technical difficulties with monitoring equipment

All samplers returned to Manufacturer for annual calibration and maintenance on 9/10/03 Samplers expected to be returned by 10/10/03

Visible Dust continues to be mitigated by regular use of a Water Truck to spray roads

# Table 9 - Daily Water Column Turbidity Monitoring Results September 2003 Monthly Report

# GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

	Flow at			Turbidity		
	Coltsville		_			Temperature
Date	(cfs)	Location	Average	High	Low	Average (°C)
		Upstream of Lyman Street Bridge	1.1	3.4	0.4	16.54
9/1/2003	30	Downstream of Pomeroy Avenue Bridge	7.1	14.6	5.1	16.32
		Upstream of Lyman Street Bridge	5.0	10.8	3.1	15.83
9/2/2003	75	Downstream of Pomeroy Avenue Bridge	6.7	13.6	4.9	15.63
		Upstream of Lyman Street Bridge	8.6	34.3	2.4	15.57
9/3/2003	101	Downstream of Pomeroy Avenue Bridge	7.0	15.2	5.3	15.88
		Upstream of Lyman Street Bridge	9.4	38.3	4.2	16.09
9/4/2003	195	Downstream of Pomeroy Avenue Bridge	11.4	19.5	6.3	16.31
		Upstream of Lyman Street Bridge	7.3	10.7	5.4	16.96
9/5/2003	156	Downstream of Pomeroy Avenue Bridge	5.1	9.2	3.2	17.29
		Upstream of Lyman Street Bridge	11.1	33.1	5.1	17.04
9/8/2003	75	Downstream of Pomeroy Avenue Bridge	2.6	7.0	1.5	17.58
		Upstream of Lyman Street Bridge	8.3	13.3	6.1	16.68
9/9/2003	68	Downstream of Pomeroy Avenue Bridge	2.0	3.8	0.8	17.04
		Upstream of Lyman Street Bridge	7.4	11.0	5.8	15.70
9/10/2003	49	Downstream of Pomeroy Avenue Bridge	1.4	1.7	1.0	16.19
		Upstream of Lyman Street Bridge	9.9	32.3	6.6	16.21
9/11/2003	52	Downstream of Pomeroy Avenue Bridge	1.2	1.9	0.9	16.79
		Upstream of Lyman Street Bridge	8.6	13.9	7.1	16.65
9/12/2003	41	Downstream of Pomeroy Avenue Bridge	1.1	1.7	0.6	17.06
		Upstream of Lyman Street Bridge	9.6	15.8	7.5	18.27
9/15/2003	40	Downstream of Pomeroy Avenue Bridge	1.0	2.0	0.4	18.61
		Upstream of Lyman Street Bridge	12.1	20.7	2.4	18.74
9/16/2003	83	Downstream of Pomeroy Avenue Bridge	3.3	5.8	1.1	19.13
		Upstream of Lyman Street Bridge	14.8	23.4	6.6	16.82
9/17/2003	80	Downstream of Pomeroy Avenue Bridge	1.9	3.1	1.1	17.31
0, 11, 200		Upstream of Lyman Street Bridge	45.2	323.3	0.8	16.05
9/18/2003	66	Downstream of Pomeroy Avenue Bridge	1.7	2.1	1.1	16.61
0, 10, 200		Upstream of Lyman Street Bridge	64.0	324.3	6.3	16.65
9/19/2003	49	Downstream of Pomeroy Avenue Bridge	4.3	8.7	2.1	17.39
0/10/2000	10	Upstream of Lyman Street Bridge	19.1	28.3	-0.1	16.29
9/23/2003	142	Downstream of Pomeroy Avenue Bridge	23.3	40.9	1.8	16.74
5, 25, 2500		Upstream of Lyman Street Bridge	15.4	36.6	-0.1	15.35
9/24/2003	247	Downstream of Pomeroy Avenue Bridge	9.5	13.1	6.5	15.61
-,, -000		Upstream of Lyman Street Bridge	39.6	135.6	-0.1	15.05
9/25/2003	105	Downstream of Pomeroy Avenue Bridge	4.8	9.6	3.2	15.43
3,23,2000	100	Upstream of Lyman Street Bridge	18.5	36.0	2.6	15.63
9/26/2003	103	Downstream of Pomeroy Avenue Bridge	3.4	4.8	1.9	15.80

	Flow at		Turbidity			
	Coltsville		A	I II auto		Temperature
Date	(cfs)	Location	Average	High	Low	Average (°C)
		Upstream of Lyman Street Bridge	29.5	167.4	1.0	14.89
9/29/2003	632	Downstream of Pomeroy Avenue Bridge	15.0	28.2	8.2	14.92
		Upstream of Lyman Street Bridge	28.2	59.5	1.0	13.40
9/30/2003	271	Downstream of Pomeroy Avenue Bridge	8.4	13.9	6.0	13.44

#### Notes:

### Turbidity Action Level - Average Downstream (Elm Street) $\geq$ Average Upstream (Lyman Street) + 50 ntu

cfs - Cubic feet per second

ntu - nephelometric turbidity units

Measurements collected using YSI 6200 Data Acquisition System using 600 OMS sonde with a 6136 Turbidity Probe

Flow data was obtained from the USGS Station 01197000 in Coltsville, MA at approximately midday.

N/A: YSI 6200 Datalogger failed for unknown reasons. YSI is attempting to recover the data.

10/13/2003

### Table 10 - Summary of Turbidity, PCB, and TSS Water Column Monitoring Results September 2003 Monthly Report

#### GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

			Turbidity (ntu)		Water	Water	Calculated Calculated			Total PCB	Filtered PCB	
	_	Estimated			Daily	Temp.	Temp.	Flow	Flow End		Concentration	Concentration
Location	Date	Flow (cfs)	High	Low	Avarage	(°C)	End(°C)	Beginning	(cfs)	Sample ID	(ug/l)	(ug/l)
Upstream of Newell St. Bridge	08/20/03	135								H0-SW000054-0-3G20	ND(0.013)	ND(0.013)
Downstream of Lyman St. Bridge	08/20/03	135	N/A	N/A	N/A	N/A				H2-SW000055-0-3G20	ND(0.012)	ND(0.013)
Upstream of Elm St. Bridge	08/20/03	135										
Downstream of Pomeroy Ave. Bridge	08/20/03	135	45.3	26.4	32.0	20.22*		156.1	135.9	H2-SW000052-0-3G20	0.078	0.028
Upstream of Newell St. Bridge	09/03/03	101										
Downstream of Lyman St. Bridge	09/03/03	101	34.3	2.4	8.6	15.57*				H2-SW000055-0-3S03	0.014	ND(0.013)
Upstream of Elm St. Bridge	09/03/03	101										
Downstream of Pomeroy Ave. Bridge	09/03/03	101	15.2	5.3	7.0	15.88*		69.7	76.9	H2-SW000052-0-3S03	0.23	ND(0.013)
(duplicate)	09/03/03	101	15.2	5.3	7.0	15.88*		69.7	76.9	H2-SW000052-1-3S03		ND(0.013)
Upstream of Newell St. Bridge	09/18/03	66				16.0**	16.2**	48.3	178.7	H0-SW000054-0-3S18	NR	NR
Downstream of Lyman St. Bridge	09/18/03	66	323.3	0.8	45.2	16.05*				H2-SW000055-0-3S18	NR	NR
Upstream of Elm St. Bridge	09/18/03	66										
Downstream of Pomeroy Ave. Bridge	09/18/03	66	2.1	1.1	1.7	16.61*		69.7	44.1	H2-SW000052-0-3S18	NR	NR

#### Notes:

#### PCB Action Level - Downstream (Pomeroy Avenue) ≥ Upstream (Lyman Street) + 5 ug/L

ND(0.013) - Analyte was not detected. The value in parentheses is the associated detection limit.

cfs - Cubic feet per second

ntu - nephelometric turbidity units

--- - No data obtained

Flow data was obtained from the USGS Station 01197000 in Coltsville, MA at approximately midday.

Water column samples were collected as 10-hour composite samples.

Two flow values calculated, one at the beginning of the sampling event and one at the end of sampling event.

NR - Not yet reported

N/A - Probe not working

<sup>\* -</sup> Temperature measured YSI 600 oms system.

<sup>\*\* -</sup> Temperature measured using hand held stainless steel thermometer.

TSS (mg/l)
5.9
5.3
--9.1
--4.3
--12.7
--NR
NR
NR

#### Table 11 - PCB Air Sampling Results September 2003 Monthly Report

### GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

#### (Results are presented in mg/m<sup>3</sup>)

			Aroclor 1016, &	Aroclor 1221,		
Sample ID	Location*	Date Collected	1242	1232, & 1248	Aroclor 1254	Aroclor 1260
H2-AR000007-0-3G29	background	8/29/2003	ND(0.00289)	ND(0.00289)	0.00404**	0.00462**
H2-AR000018-0-3G29	AR000018	8/29/2003	ND(0.00567)	ND(0.00567)	ND(0.00567)	ND(0.00567)
H2-AR000018-1-3G29 (duplicate)	AR000018	8/29/2003	ND(0.00553)	ND(0.00553)	ND(0.00553)	ND(0.00553)
H2-AR000022-0-3G29	AR000022	8/29/2003	ND(0.00283)	ND(0.00283)	ND(0.00283)	ND(0.00283)
H2-AR000026-0-3G29	AR000026	8/29/2003	ND(0.00274)	ND(0.00274)	ND(0.00274)	ND(0.00274)
H2-AR000027-0-3G29	AR000027	8/29/2003	ND(0.00268)	ND(0.00268)	ND(0.00268)	ND(0.00268)
H2-AR000007-0-3C01	background	9/30/2003	NR	NR	NR	NR
H2-AR000026-0-3C01	AR000026	9/30/2003	NR	NR	NR	NR
H2-AR000027-0-3C01	AR000027	9/30/2003	NR	NR	NR	NR
H2-AR000028-0-3C01	AR000028	9/30/2003	NR	NR	NR	NR
H2-AR000029-0-3C01	AR000029	9/30/2003	NR	NR	NR	NR

Notes:

Notification Level: 0.05mg/m<sup>3</sup>
Action Level: 0.1mg/m<sup>3</sup>
NR - Not yet reported

\* - See Figure 1 for locations

\*\* - Reported Value may be Biassed due to Apparent Matrix Interferences

Total PCBs

0.00866\*\*

ND(0.00567)

ND(0.00553)

ND(0.00283)

ND(0.00274)

ND(0.00268)

NR

NR

NR

NR

NR

# Table 12 - Equipment and Sheetpile Confirmatory Wipe Samples September 2003 Monthly Report

### GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

(Results are presented in mg/100 cm<sup>2</sup>)

Sample ID	Date Collected	Aroclor 1016, 1221, 1232, 1242, & 1248	Aroclor 1254	Aroclor 1260	Total PCBs
H2-XI000094-0-3\$05	05-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000095-0-3S11	11-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000096-0-3S11	11-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000097-0-3S23	23-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000098-0-3S23	23-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000099-0-3S24	24-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000100-0-3S24	24-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000101-0-3S24	24-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
H2-XI000102-0-3S30	30-Sep-03	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

#### Notes:

PCB Action Level - 10.0 mg/100 cm<sup>2</sup>

ND(0.5) - Analyte was not detected. The value in parentheses is the associated detection limit.

# Table 13 - Water Treatment System Modutank Sediment Testing Results September 2003 Monthly Report GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action Pittsfield, MA

#### (Results are presented in part per million, ppm)

Sample ID		H2-OT000076-0-3G18	H2-OT000077-0-3G18	H2-OT000078-0-3G18	H2-OT000079-0-3G21	H2-OT000080-0-3G21
	Water Treatment	Water Treatment	Water Treatment	Water Treatment	Water Treatment	Water Treatment
Sample type		System Sediment				
Date Collected	08/18/2003	08/18/2003	08/18/2003	08/18/2003	08/21/2003	08/21/2003
Analyte						
APP IX SEMIVOLATILES						
1,2,4-TRICHLOROBENZENE					0.046 J	ND
1,4-DICHLOROBENZENE					0.12 J	ND
2-METHYLNAPHTHALENE					0.25 J	3.1
ACENAPHTHENE					0.45 J	3.9
ACENAPTHYLENE					0.042 J	0.55 J
ANTHRACENE					0.26 J	2.7
BENZO(A)ANTHRACENE					0.37 J	2.2
BENZO(A)PYRENE					0.32 J	2.1 J
BENZO(B)FLUORANTHENE					0.26 J	1.1 J
BENZO(GHI)PERYLENE					0.19 J	1.1 J
BENZO(K)FLUORANTHENE					0.25 J	1.2 J
BIS(2-ETHYLHEXYL) PHTHALATE					0.66 J	0.35 J
CHRYSENE					0.44 J	2.2
DIBENZO(A,H)ANTHRACENE					ND	0.33 J
DIBENZOFURAN					0.037 J	0.21 J
FLUORANTHENE					0.75	4.8
FLUORENE					0.24 J	2.6
INDENO(1,2,3-C,D)PYRENE					0.15 J	0.67 J
NAPHTHALENE					0.34 J	1.8 J
PHENANTHRENE					1.2	11.0
PYRENE					1.4	6.7
TCLP SEMIVOLATILES						
					all Non-Detects	all Non-Detects

Sample ID	H2-OT000075-0-3G18	H2-OT000076-0-3G18	H2-OT000077-0-3G18	H2-OT000078-0-3G18	H2-OT000079-0-3G21	H2-OT000080-0-3G21
	Water Treatment					
Sample type	System Sediment					
Date Collected	08/18/2003	08/18/2003	08/18/2003	08/18/2003	08/21/2003	08/21/2003
Analyte						
APP IX VOLATILES						
1,2,4-TRICHLOROBENZENE					0.0039 J	ND
1,4-DICHLOROBENZENE					0.018	ND
2-BUTANONE					0.098	0.057
ACETONE					0.33	0.2
BENZENE					0.0074 J	0.0054 J
CARBON DISULFIDE					0.0079 J	0.0048 J
CHLOROBENZENE					0.0048 J	0.0043 J
CIS-1,2-DICHLOROETHENE					0.0033 J	0.0039 J
ETHYL BENZENE					0.0077 J	0.0034 J
M,P-XYLENE (SUM OF ISOMERS)					0.009 J	0.0044 J
METHYLENE CHLORIDE					ND	0.0026 J
NAPHTHALENE						0.18
O-XYLENE					0.0033 J	0.0024 J
TOLUENE					0.019	0.015
TRANS-1,2-DICHLOROETHENE					ND	0.0017 J
XYLENES (TOTAL)					0.011	0.0069 J
HERBICIDES						
					all Non-Detects	all Non-Detects
TCLP HERBICIDES						
					all Non-Detects	all Non-Detects
APP IX PESTICIDES						
4,4'-DDT					0.18 J	0.44 J
DIELDRIN					0.21	0.41 J
KEPONE					0.75	1.8
TCLP PESTICIDES						
					all Non-Detects	all Non-Detects
METALS						
ANTIMONY					ND	1.3
ARSENIC					7.8	9.4
BARIUM					76.1	89.2
BERYLLIUM					0.70	0.70
CADMIUM					0.53	0.51
CHROMIUM					28.3	28.7

Sample ID	H2-OT000075-0-3G18	H2-OT000076-0-3G18	H2-OT000077-0-3G18	H2-OT000078-0-3G18	H2-OT000079-0-3G21	H2-OT000080-0-3G21
	Water Treatment					
Sample type	System Sediment					
Date Collected	08/18/2003	08/18/2003	08/18/2003	08/18/2003	08/21/2003	08/21/2003
Analyte						
COBALT					15.2	16.5
COPPER					72.7	76.4
LEAD					89.4	102
MERCURY					0.26	0.25
NICKEL					28.5	31.9
TIN					10.8	11.2
VANADIUM					20.3	22.3
ZINC					171	190
TCLP METALS						
ARSENIC, TCLP LEACHATE					7.1	8.6
BARIUM, TCLP LEACHATE					632	967
CADMIUM, TCLP LEACHATE					9.0	9.4
CHROMIUM, TCLP LEACHATE					9.3	12.3
LEAD, TCLP					357	376
SELENIUM, TCLP LEACHATE					10.2	11.4
INORGANICS						
CORROSIVITY BY PH					7.3	7.2
CYANIDE REACTIVITY					ND	ND
IGNITABILITY (deg f)					150	150
PERCENT SOLIDS (%)					48.4	52.3
SULFIDE REACTIVITY					26.9	29.1
PCBS						
AROCLOR-1254	.21	11.0	5.8	24.0	8.0	8.2
AROCLOR-1260	1.2	32.0	11.0	26.0	14.0	15.0
PCB, TOTAL	1.4	43.0	17.0	50.0	22.0	23.0
ORGANIC						
PETROLEUM HYDROCARBON					349	860

#### Notes:

Only detected constituents are summarized J - Indicates as estimated value

ND - not detected

--- not sampled



Photograph 1 – Temporary Dam



**Photograph 2 - 54-inch Pipe Connected to the Temporary Dam** 



Photograph 3 – Excavation Activities in Cell 13W



Photograph 4 – Excavation Activities in Cell 13W



Photograph 5 – Temporary Timber Mat Bridge to Access Cell 13E



Photograph 6 – Excavation Activities in Cell 13E



Photograph 7 – Excavation Activities in Cell 13E



Photograph 8 – Overview of the Temporary Dam and downstream areas of the Dam under Flood Conditions

